

# MEMORANDUM



**Date:** June 26, 2007

**To:** Honorable Chairman Bruno A. Barreiro  
and Members, Board of County Commissioners

**From:** George W. Burgess  
County Manager

Agenda Item No 8(R)3(B)

**Subject:** Request to Advertise for Design and Construction Management Services for the Central District Wastewater Treatment Plant Water Reclamation Facility - Contract No: E07-WASD-03

## **Recommendation**

This Request to Advertise for consultant selection has been prepared by the Miami-Dade Water and Sewer Department (MDWASD) and is recommended for approval pursuant to Section 2-8.1 of the Code of Miami-Dade County. The consultant is to provide planning, design, permitting and construction management services for the construction of a 1 million gallons per day (MGD) Water Reclamation Facility at the MDWASD Central District Wastewater Treatment Plant (CDWWTP).

## **Scope**

**PROJECT NAME:** Design and Construction Management Services for the CDWWTP Water Reclamation Facility

**PROJECT NO:** E07-WASD-03

**CONTRACT NO:** E07-WASD-03

**PROJECT DESCRIPTION:** The consultant is to provide planning, design, permitting and construction management services for the construction of a 1 MGD Water Reclamation Facility at the MDWASD CDWWTP. This water reclamation facility will use the treated effluent to irrigate the Crandon Park Golf Course and other green areas in the Village of Key Biscayne.

**PROJECT LOCATION:** 3989 Rickenbacker Causeway, Key Biscayne, Fl 33149

**PRIMARY COMMISSION DISTRICT:** District 7 Carlos A. Gimenez

**APPROVAL PATH:** Board of County Commissioners

**OCI A&E PROJECT NUMBER:** E07-WASD-03

**USING DEPARTMENT:** Miami-Dade Water and Sewer Department

**MANAGING DEPARTMENT:** Miami-Dade Water and Sewer Department

## **Fiscal Impact / Funding Source**

**FUNDING SOURCE:** **SOURCE**  
Future WASD Revenue Bonds 2009S, Future Bond Issue, Plant Expansion  
Wastewater Fund and WASD Revenue Bonds Sold

**PTP FUNDING:** No

**GOB FUNDING:** No

<b>CAPITAL BUDGET PROJECT:</b>	<b><u>BUDGET PROJECT / DESCRIPTION</u></b>	<b><u>RTA ESTIMATE</u></b>
	965630-WASTEWATER TREATMENT PLANTS EFFLUENT REUSE	<u>\$2,530,000.00</u>
	Book Page: 314 Funding Year: Adopted Capital Budget Book for 2006-2007 from Prior Years' Funding	

<b>PROJECT TECHNICAL CERTIFICATION REQUIREMENTS:</b>	<b><u>TYPE</u></b>	<b><u>CODE</u></b>	<b><u>DESCRIPTION</u></b>
	Prime	6.03	WATER AND SANITARY SEWER SYSTEMS - WATER AND SANITARY SEWAGE TREATMENT PLANTS
	Prime	11.00	GENERAL STRUCTURAL ENGINEERING
	Prime	17.00	ENGINEERING CONSTRUCTION MANAGEMENT
	Other	9.02	SOILS, FOUNDATIONS AND MATERIALS TESTING - GEOTECHNICAL AND MATERIALS ENGINEERING SERVICES
	Other	12.00	GENERAL MECHANICAL ENGINEERING
	Other	13.00	GENERAL ELECTRICAL ENGINEERING
	Other	15.01	SURVEYING AND MAPPING - LAND SURVEYING
	Other	16.00	GENERAL CIVIL ENGINEERING

**ESTIMATED CONTRACT  
PERIOD:** 1460 Consecutive Calendar Days = 4 years: Planning - Design = 1 year;  
Permitting - Procurement = 1 year; Construction - Startup = 2  
years

**ESTIMATED CONTINGENCY  
PERIOD:** 146 Consecutive  
Calendar Days

**IG FEE INCLUDED IN BASE  
CONTRACT:** Yes

**ART IN PUBLIC PLACES:** No

**BASE ESTIMATE:** \$2,300,000.00

	TYPE	PERCENT	AMOUNT	COMMENT
CONTINGENCY ALLOWANCE (SECTION 2-8.1 MIAMI DADE COUNTY CODE):	PSA	10%	\$230,000.00	

TOTAL DEDICATED ALLOWANCE: \$0.00

COST ESTIMATE: \$2,530,000.00

### **Track Record / Monitor**

#### **EXPLANATION:**

MINIMUM QUALIFICATIONS EXCEED LEGAL REQUIREMENTS: No

REVIEW COMMITTEE: MEETING DATE: 4/11/2007 SIGNOFF DATE: 4/11/2007

RESPONSIBLE WAGES: No

REVIEW COMMITTEE ASSIGNED CONTRACT MEASURES:	MEASURE GOAL	COMMENT
	CBE 25.00% CBE	
	CWF 0.00% Not Applicable	

MANDATORY CLEARING HOUSE: N/A

CONTRACT MANAGER NAME/PHONE/EMAIL:	Howard J. Fallon Jr.	786-552-8225	HJFAL01@miamidade.gov
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PROJECT MANAGER NAME/PHONE/EMAIL:	Patty David	786-552-8040	pattyd@miamidade.gov
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### **Background**

**BACKGROUND:** This water reclamation facility is a requirement of Miami-Dade County's Interim Consumptive Use Authorization and Agreement with the South Florida Water Management District executed in May 2006, under which the County has committed to developing alternative water supplies to meet its increased demands from sources other than the Biscayne Aquifer. Flows from the proposed 1 MGD Water Reclamation Facility at MDWASD's CDWWTP have been submitted to the South Florida Water Management District as part of the Alternative Water Supply requirement with a completion schedule in December 2010.

This water reclamation facility will use the treated effluent to irrigate the Crandon Park Golf Course and other green areas in the Village of Key Biscayne.

BUDGET APPROVAL  
FUNDS AVAILABLE:

  
OSBM DIRECTOR

5-30-07  
DATE JS

APPROVED AS TO  
LEGAL SUFFICIENCY:

  
COUNTY ATTORNEY

5-30-07  
DATE

  
ASSISTANT COUNTY  
MANAGER

5/31/07  
DATE

CLERK DATE

\_\_\_\_\_  
DATE

**Request to Advertise**  
**Design and Construction Management Services for the**  
**Central District Wastewater Treatment Plant**  
**Water Reclamation Facility**  
**Project No. E07-WASD-03**

**BUDGET PROJECT AND  
DESCRIPTION:**

965630 – Wastewater Treatment Plants Effluent Reuse

**FUNDING SOURCE:**

Future WASD Revenue Bonds 2009S  
Future Bond Issue

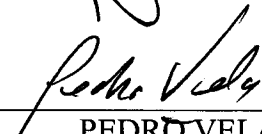
**INDEX CODES:**

EW623 Plant Expansion Wastewater Fund  
EW643 WASD Revenue Bonds Sold

**ASSISTANT DIRECTOR,  
ENGINEERING:**

 5/14/07  
\_\_\_\_\_  
EDUARDO A. VEGA, P.E. DATE


**DEPT. BUDGET OFFICER**

 5/14/07  
\_\_\_\_\_  
PEDRO VELAR DATE

**ASSISTANT DIRECTOR,  
FINANCE**

 5/14/07  
\_\_\_\_\_  
DIANE CAMACHO DATE

**DEPUTY DIRECTOR,  
OPERATIONS**

 5/14/07  
\_\_\_\_\_  
JOSEPH A. RUIZ, JR. DATE

STRATEGIC AREA: Neighborhood and Unincorporated Area Municipal Services  
DEPARTMENT: Water and Sewer

\*\*\*\*\* FUNDED PROJECTS \*\*\*\*\*  
(dollars in thousands)

# WASTEWATER TREATMENT PLANTS EFFLUENT REUSE

PROJECT # 965630

DESCRIPTION: Begin planning and construction of facilities for an effluent reuse system at wastewater treatment plants

LOCATION: Systemwide  
Systemwide

ESTIMATED ANNUAL OPERATING IMPACT: Minimal

DISTRICT LOCATED: Systemwide  
DISTRICT(s) SERVED: Systemwide

## REVENUE SCHEDULE:

	PRIOR	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	FUTURE	TOTAL
Wastewater Connection Charges	80	0	0	0	0	0	0	0	80
WASD Revenue Bonds Sold	22,934	0	0	0	0	0	0	0	22,934

## TOTAL REVENUE:

23,014	0	0	0	0	0	0	0	0	23,014
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## EXPENDITURE SCHEDULE:

	PRIOR	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	FUTURE	TOTAL
Planning and Design	26	572	1,496	0	0	0	0	0	2,094
Construction	265	5,716	14,939	0	0	0	0	0	20,920

## TOTAL EXPENDITURES:

291	6,288	16,435	0	0	0	0	0	0	23,014
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# WASTEWATER TREATMENT PLANTS MISCELLANEOUS UPGRADES

PROJECT # 9652061

DESCRIPTION: Upgrade wastewater treatment plants to meet regulatory requirements

LOCATION: Wastewater Treatment Plants  
Systemwide

ESTIMATED ANNUAL OPERATING IMPACT: Minimal

DISTRICT LOCATED: Systemwide  
DISTRICT(s) SERVED: Systemwide

## REVENUE SCHEDULE:

	PRIOR	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	FUTURE	TOTAL
Wastewater Connection Charges	462	0	0	0	0	0	0	637	1,099
WASD Revenue Bonds Sold	1,353	0	0	0	0	0	0	0	1,353
Future WASD Revenue Bonds	0	0	0	0	0	0	13,074	0	13,074

## TOTAL REVENUE:

1,815	0	0	0	0	0	13,074	637	15,526
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## EXPENDITURE SCHEDULE:

	PRIOR	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	FUTURE	TOTAL
Planning and Design	15	14	136	0	0	0	242	1,005	1,412
Construction	150	136	1,364	0	0	0	2,422	10,042	14,114

## TOTAL EXPENDITURES:

165	150	1,500	0	0	0	2,664	11,047	15,526
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**BUDGET PROJECT 965630**

Project Title: 965630-WASTEWATER TREATMENT PLANTS EFFLUENT REUSE

Project Desc: Begin planning and construction of facilities for an effluent reuse system at wastewater treatment plants

Project \$\$	<u>Start:</u>	<u>End:</u>	<u>Prior:</u>	<u>06-07:</u>	<u>07-08:</u>	<u>08-09:</u>	<u>09-10:</u>	<u>Total:</u>
(\$\$ in 000's)	10/1/2003	9/30/2007	291	6,288	16,435	0	0	23,014

Project Type: Capital

**CDPWeb Project Milestones (\$ IN 000'S)**

<u>Milestone:</u>	<u>Start:</u>	<u>End:</u>	<u>Prior:</u>	<u>06-07:</u>	<u>07-08:</u>	<u>08-09:</u>	<u>09-10:</u>	<u>Total:</u>
Planning/Design	N/A	N/A	26	572	1,496	0	0	2,094
Construction	N/A	N/A	265	5,716	14,939	0	0	20,920

**CDPWeb Project Revenue (\$ IN 000'S)**

<u>Revenue:</u>	<u>Start:</u>	<u>End:</u>	<u>Prior:</u>	<u>06-07:</u>	<u>07-08:</u>	<u>08-09:</u>	<u>09-10:</u>	<u>Total:</u>
Wastewater Connection	N/A	N/A	80	0	0	0	0	80

EXIT

**Current Contracts for Project 965630**

<u>Dept</u>	<u>ContractNo</u>	<u>Contract Name</u>	<u>RTA Budget Allocation</u>	<u>Award Budget Allocation</u>	<u>CIIS Award</u>
WS	<u>E07-WASD-02</u>	Design and Construction Manage	\$55,000,000.00	\$0.00	\$0.00
WS	<u>E07-WASD-03</u>	Design and Construction Manage	\$2,530,000.00	\$0.00	\$0.00
WS	<u>E07-WASD-04</u>	Design and Construction Manage	\$3,400,000.00	\$0.00	\$0.00
Total Allocated: \$60,930,000.00				\$0.00	

**There are no Sites for Project 965630**



Dept. of Business Development  
Project Worksheet

Project/Contract Title: DESIGN AND CONSTRUCTION MANAGEMENT SERVICES FOR THE  
CENTRAL DISTRICT WASTEWATER TREATMENT PLANT WASTEWATER  
REUSE FACILITY (SIC 871)

RC Date: 04/11/2007  
1-10

Project/Contract No: E07-WASD-03

Funding Source:

Item No:

Department: WATER & SEWER DEPARTMENT

VARIOUS

Estimated Cost of Project/Bid: \$2,300,000.00

Resubmittal Date(s):

Description of Project/Bid: TO ESTABLISH A CONTRACT TO EMPLOY AN ENGINEERING FIRM TO PROVIDE DESIGN AND CONSTRUCTION  
MANAGEMENT SERVICES FOR THE CONSTRUCTION OF THE CENTRAL DISTRICT WASTEWATER TREATMENT PLANT  
WASTEWATER REUSE FACILITY. THE SCOPE OF WORK SHALL ALSO INCLUDE PROCESS EVALUATION,  
RECOMMENDED UPGRADES AND EVALUATION OF THE USE OF THE APPROPRIATE MEMBRANE TECHNOLOGIES TO  
REDUCE EXISTING PLANT EFFLUENT CHLORIDES TO ACCEPTABLE LEVELS AND CONCEPTUAL DESIGN OF THE  
DELIVERY SYSTEMS (AMONGST OTHER FUNCTIONS).

Contract Measures Recommendation

Measure	Program	Goal Percent
Goal	CBE	25.00%

Reasons for Recommendation

This project meets all the criteria set forth in A.O. 3-32, Section V.

Funding source: Future WASD Revenue Bonds, WASD Revenue Bonds Sold, and Plant Expansion Wastewater Fund

SIC 871 - Architectural and Engineering Services

Analysis for Recommendation of a Goal

Subtrade	Cat.	Estimated Value	% of Items to Base Bid	Availability
GENERAL MECHANICAL ENGINEERING	CBE	\$345,000.00	15.00%	24
GENERAL ELECTRICAL ENGINEERING	CBE	\$115,000.00	5.00%	25
GENERAL CIVIL ENGINEERING	CBE	\$115,000.00	5.00%	56
Total		\$575,000.00	25.00%	

Living Wages: YES ☐ NO ☒

Responsible Wages: YES ☐ NO ☒

Ordinance 90-143 is applicable to all construction projects over \$100,000 that do not utilize Federal Funds


REVIEW COMMITTEE RECOMMENDATION

Tier 1 Set Aside \_\_\_\_\_

Set Aside \_\_\_\_\_ Level 1 \_\_\_\_\_ Level 2 \_\_\_\_\_ Level 3 \_\_\_\_\_

Trade Set Aside (MCC) \_\_\_\_\_ Goal 25% Bid Preference \_\_\_\_\_

No Measure \_\_\_\_\_ Deferred \_\_\_\_\_ Selection Factor \_\_\_\_\_

  
Chairperson, Review Committee

Date

County Manager

Date

MIAMI-DADE COUNTY, FLORIDA  
NOTICE TO PROFESSIONAL CONSULTANTS

**MIAMI-DADE WATER AND SEWER DEPARTMENT  
DESIGN AND CONSTRUCTION MANAGEMENT SERVICES  
FOR THE CENTRAL DISTRICT WASTEWATER TREATMENT PLANT  
WATER RECLAMATION FACILITY  
PROJECT NO. E07-WASD-03**

The County Manager, Miami-Dade County, pursuant to Chapter 287.055, Florida Statutes, and Chapter 2, Sections 2-8.1 (as amended Ordinance 05-105) and 2-10.4 of the County Code and Administrative Order 3-39, announces that the Miami-Dade Water and Sewer Department (MDWASD) will require professional engineering services from a qualified consultant to provide planning, design, permitting and construction management services for the implementation of a Water Reclamation Facility at the MDWASD Central District Wastewater Treatment Plant with capacity of approximately 1 million gallons per day (MGD) pending finalization of water reclamation application points. Uses of water reclamation facility effluent will include irrigation at the Crandon Park Golf Course and green areas in the Village of Key Biscayne. Treatment facilities are included in the MDWASD Reuse Feasibility Study and the flows have been submitted to the South Florida Water Management District as part of the Alternative Water Supply requirement with a scheduled completion by December, 2010. This requirement is included in the Interim Consumptive Use Authorization and Agreement with the South Florida Water Management District executed in May 2006, under which Miami-Dade County has committed to developing alternative water supplies to meet its increased demands from sources other than the Biscayne Aquifer.

The scope of work shall include process evaluation, including possible inclusion of a part of existing facilities with any recommended upgrades and evaluation of the use of the appropriate membrane technologies to reduce existing plant effluent chlorides to acceptable levels, conceptual design of the delivery systems including pipeline sizing, routing and storage; design of water reclamation pumping station and storage; preparation of complete detailed construction drawings and specifications; detailed cost estimates; attendance at meetings, contract interpretations and clarifications, review of claims and potential change order requests; review and processing of shop drawings, review of schedule of values and as-built drawings, assist in property acquisition; provide permitting services and bidding and construction management services, answering requests for information, start-up assistance and final inspection; utility coordination, surveying, and geotechnical work; prepare operations and maintenance manuals and provide training for operations and maintenance; provide record drawings documentation; provide transactional system integration and database development through design and construction. Design of water reclamation transmission lines will be by others. Project coordination services are anticipated to include, establish and track project schedule, budget and deadlines, prepare status reports and attend meetings as requested. Included also shall be public information services for coordination with residents and municipalities regarding the water reclamation systems. The total estimated construction cost of the project is \$9 million.

The prime and/or subconsultants are required to have experience with the design and construction management services of least one (1) similar sized facility with the advanced treatment required for this project within the past five (5) years. The MDWASD intends to retain one qualified firm under a non-exclusive Professional Services Agreement. The term of

the contract is for a four (4) year period. Maximum compensation is \$2,300,000 plus contingency in accordance with Ordinance 00-65. No minimum amount of work or compensation will be assured to the retained consultant. The County reserves the right to re-use the work products of the retained consultant and to retain other consultants to provide the same or similar services at its sole discretion. The consultant coordinator for this project is \_\_\_\_\_ who may be contacted via e-mail at \_\_\_\_\_ or fax at \_\_\_\_\_ with copy to the Clerk of the Board.

## TECHNICAL CERTIFICATION REQUIREMENTS

### Prime

6.03 Water and Sanitary Sewage Treatment Plants  
 11.00 General Structural Engineering  
 17.00 Engineering Construction Management

### Prime and/or Subconsultants

9.02 Geotechnical and Materials Engineering Services  
 12.00 General Mechanical Engineering  
 13.00 General Electrical Engineering  
 15.01 Land Surveying  
 16.00 General Civil Engineering

CBE Goal 20%

### BREAKDOWN LIST

	<u>%</u>	<u>CBE%</u>
06.03 Water and Sanitary Sewage Treatment Plants	20%	
12.00 General Mechanical Engineering	15%	15%
13.00 General Electrical Engineering	15%	5%
17.00 Engineering Construction Management	15%	
11.00 General Structural Engineering	15%	
16.00 General Civil Engineering	10%	5%
09.02 Geotechnical and Materials Engineering Services	5%	
15.01 Land Surveying	5%	
<b>TOTAL</b>	<b>100%</b>	<b>25%</b>